National Transportation Safety Board NTSB ID: ANC01LA029 Aircraft Registration Number: N2191J FACTUAL REPORT Occurrence Date: 01/13/2001 Most Critical Injury: None **AVIATION** Occurrence Type: Accident Investigated By: NTSB Location/Time Nearest City/Place State Zip Code Local Time Time Zone 99502 1430 AST Anchorage ΑK Distance From Landing Facility: Direction From Airport: Airport Proximity: Off Airport/Airstrip Aircraft Information Summary Aircraft Manufacturer Model/Series Type of Aircraft Piper PA-18 Airplane

## Narrative

Sightseeing Flight: No

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On January 13, 2001, about 1430 Alaska standard time, a tundra tire-equipped Piper PA-18 airplane, N2191J, sustained substantial damage during a forced landing, about 32 miles west of Anchorage, Alaska. The airplane was being operated as a visual flight rules (VFR) local area personal flight when the accident occurred. The airplane was operated by the pilot. The private certificated pilot, the sole occupant, was not injured. Visual meteorological conditions prevailed. The flight originated at the Birchwood Airport, Chuqiak, Alaska, about 1330.

Air Medical Transport Flight: No

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), January 14, 2001, the pilot reported that he was in cruise flight about 1,000 feet above ground level (agl). He observed an area of snow showers ahead of the airplane, and decided to descend to about 500 feet agl. The pilot said he reduced the engine throttle without first applying carburetor heat. When he added engine throttle to level the airplane at 500 feet, the engine began sputtering. He then applied carburetor heat, but the engine did not respond. The engine continued to run rough, and the airplane could not sustain level flight. The pilot selected a snow-covered gravel bar for a forced landing. The airplane touched down in snow that was about 18 inches deep. During the landing roll, the airplane nosed over, and received damage to the right wing lift strut and the rudder.

At 1453, an Aviation Routine Weather Report (METAR) at Anchorage was reporting in part: Wind, 276 degrees at 7 knots; visibility, 10 statute miles; clouds and sky condition, few at 2,500 feet, 7,000 feet overcast; temperature, 29 degrees F; dew point, 27 degrees F; altimeter, 29.52 inHg.

In the Pilot/Operator report (NTSB Form 6120.1/2) submitted by the pilot, he reported the weather conditions in the area of the accident as 1,200 to 1,500 feet overcast; temperature 35 to 38 degrees F; light to moderate snow showers.

The owner's handbook for the accident airplane states in part: "Cruising: ...Unless icing conditions in the carburetor are severe, do not cruise with the carburetor heat on. Apply full carburetor heat only for a few seconds at intervals determined by icing severity. Approach and Landing: ...The carburetor heat need not be used unless icing conditions prevail, but the engine should be cleared occasionally by opening the throttle."

The FAA's, Pilot's Handbook of Aeronautical Knowledge, AC 61-23C, states, in part: "Conditions conducive to carburetor icing: ...if the temperature is between 20 degrees F and 70 degrees F, with visible moisture or high relative humidity, the pilot should be constantly on the alert for carburetor ice. During low or closed throttle settings, an engine is particularly susceptible to carburetor icing."

The FAA's, Pilot Precautions and Procedures to be Taken in Preventing Aircraft Reciprocating Engine Induction System and Fuel System Icing Problems, AC 20-113, states, in part: Vaporization icing

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Narrative (Continued)

may occur at temperatures from 32 degrees F to as high as 100 degrees F with a relative humidity of 50 percent or above Since aviation weather reports normally include air temperature and dew point temperature, it is possible to relate the temperature/dew point spread to relative humidity. As the spread becomes less, relative humidity increases and becomes 100 percent when temperature and dew point are the same. In general, when the temperature/dew point spread reaches 20 degrees or less, you have a relative humidity of 50 percent or higher and are in potential icing conditions."

According to published carburetor icing charts, the atmospheric conditions at the time of the accident (38 degrees and visible moisture) reflected the probability of serious icing utilizing descent power.

In a telephone conversation with the pilot on June 11, 2001, he reported that no mechanical malfunctions were found after the airplane was recovered.

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AVIATION			Occurrence Type: Accident										
Landing Facility/Approach Inf	formation												
Airport Name Airp			Airport I	ID:	Airport Eleva	tion MSL	Run	way Used	Runwa	y Lengt	h F	Runwa	ay Width
Runway Surface Type:		•											
Runway Surface Condition:													
Type Instrument Approach: NONE	<u> </u>												
VFR Approach/Landing: Forced L	anding												
Aircraft Information													
Aircraft Manufacturer			"	lodel/S	eries						Number		
Piper				PA-18						18-71	85		
Airworthiness Certificate(s): Normal													
Landing Gear Type: Tailwheel													
11011001 01 000101 2				Certified Max Gross Wt.				1750 LBS Number			r of Eng	jines:	1
				Engine Manufacturer: Model/Series: Lycoming O-320					ries:			Rated 150 I	Power: HP
- Aircraft Inspection Information													
Type of Last Inspection			Date of	Date of Last Inspection Time			Time Si	nce Last Insp	ection	Airfram	e Tota	al Time	
Annual 04				04/24/2000					40 Hours			40	00 Hours
- Emergency Locator Transmitter (	ELT) Information									-			
ELT Installed? Yes	s	ELT Aided in Locating Accident Site? Yes											
Owner/Operator Information													
Registered Aircraft Owner  Street Address 10509 S. Wildcat Rd.													
Eric J. Jackson	City	City									Zip Code		
	Stre	Molalla OR 97038 Street Address									97038		
Operator of Aircraft Same as Reg'd Aircraft Owner													
Same as Reg'd Aircraft Owner				City							State		Zip Code
Operator Does Business As:							0	perator Desig	nator Co	de:			
- Type of U.S. Certificate(s) Held: N	Vone						•						
Air Carrier Operating Certificate(s):													
Operating Certificate:					Operator C	ertific	ate:						
Regulation Flight Conducted Under	r: Part 91: Genera	al Aviat	ion		•								
Type of Flight Operation Conducted	l: Personal												
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AVIATION				Occurrent	Occurrence Type: Accident									
First Pilot Ir	nformation													
Name						City					State	Dat	te of Birth	Age
On File					On File	е			(	On File O		n File	37	
Sex: M	own				Certif	icate Nu	ımber:	On File						
Certificate(s):	Priva	ate												
Airplane Ratir	ng(s): Sing	le-engine L	and											
Rotorcraft/Glid	der/LTA: None	е												
Instrument Ra	ating(s): None	<u></u> е												
Instructor Rat	ing(s): None	е												
Type Rating/E	ndorsement fo	or Accident/In	ncident Aircra	ift? No			С	urrent Bie	nnial	Flight Rev	view? 0	9/07/1	1999	
Medical Cert.: Class 3  Medical Cert. Status: Valid Medicalno waivers/l									Da	te of Last	Medica	l Exar	n: 05/26/19	99
		-												
- Flight Time I	ight Time Matrix  All A/C  This Make and Model Single Engine Mult-Engine N						ght Instrument Sir			Simulated	Rotorcraft		Glider	Lighter Than Air
Total Time		362	35	362			9			4				
Pilot In Comma	and(PIC)													
Instructor														
Last 90 Days		10	8	10							_			
Last 30 Days		5	5	5					_		_			
Last 24 Hours 5 5 5 5														
Seatbelt Used? Yes Shoulder Harness Used? Yes Toxicology Performed? No Second Pilot? No														
Flight Plan/	Itinerary													
Type of Flight	Plan Filed: No	one												
Departure Point								А	Airport Identifier		De	Departure Time		Time Zone
Chugiak								P	PABV		133	1330		AST
Destination							State	e Airport Identifier						
Local Flight														
Type of Clear	ance:					•		•			•			
Type of Airspa	ace:													
Weather In	formation													
Source of Brid		ord of briefi	ing											
Method of Bri	efing: Unkno	wn												
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	ETYBOR		Occurrenc	e Type:	Acciden	ıt									
Weather	Information														
WOF ID	Observation Time	Time Zone	WOF Elevati	ion	WOF Distance From Accident Site					Direction From Accident Site					
PANC	1453	AST	<b>144</b> Ft.	. MSL				32 NM			90 Deg. Mag.				
Sky/Lowes	st Cloud Condition: Few			2500 Ft. AGL					Condition of Light: Day						
Lowest Ce	iling: Overcast		7000 Ft.	AGL	ility:	10	SM	Alti	Altimeter: 29.52 "H						
Temperatu	ıre: -2 °C [	-3 °C	Wind	Density Altitude:											
Wind Spee	ed: 7	Gusts:		Weath	Weather Condtions at Accident Site: Visual Conditions										
Visibility (F	RVR): Ft.	Visibility (RV	/V)	SM	Intensity	y of Precipi	tation:	Light							
Restrictions to Visibility: None															
Type of Precipitation: Snow Shower															
Accident	Information														
Aircraft Da	Aircraft Fire	e:	Aircraft Expl					n							
Classificati	on:														
- Injury Su	mmary Matrix	Fatal Ser	rious Mino	or	None	TOTAL									
First Pi	lot				1	1	ī]								
Second	d Pilot						7								
Studen	it Pilot			$\neg$			1								
Flight I	nstructor			$\top$			1								
Check	Pilot			$\top$			1								
Flight E	Engineer						1								
Cabin A	Attendants						1								
Other 0	Crew						1								
Passer	ngers						7								
- TOTAL A	ABOARD -				1	1	1								
Other 0	Ground Ground						1								
- GRANE	O TOTAL -				1	1	1								

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Investigator-In-Charge (IIC)

Scott Erickson

Additional Persons Participating in This Accident/Incident Investigation:

William Bohman Air Safety Inspector FAA, Anchorage FSDO 4510 W. International Airport Rd. Anchorage, AK 99502